

K. J. Somaiya Institute of Technology, Sion, Mumbai-22
(Autonomous College Affiliated to University of Mumbai)

April – May 2023

B.Tech Program: **Artificial Intelligence & Data Science** Scheme-II

Examination: TY Semester: VI

Course Code: **AIC604** and Course Name: **Big Data Analytics**

Date of Exam: 19/05/2023

Duration: 2.5 Hours

Max. Marks: 60

Instructions:

- (1) All questions are compulsory.
- (2) Draw neat diagrams wherever applicable.
- (3) Assume suitable data, if necessary.

		Max. Marks	CO	BT level
Q 1	Solve any six questions out of eight.	12		
i)	What is Bloom Filter?	2	CO4	R
ii)	List various applications of Big Data Analytics.	2	CO1	R
iii)	Compare SQL and NOSQL database.	2	CO2	An
iv)	Illustrate the use of MapReduce with a real-life example.	2	CO3	U
v)	List types of NoSQL databases.	2	CO2	U
vi)	What is CURE?	2	CO5	U
vii)	What is page rank?	2	CO6	U
viii)	What is SVM classifier?	2	CO5	U
Q.2	Solve any four questions out of six.	16		
i)	Discuss Flajolet-Martin Algorithm.	4	CO4	U
ii)	Discuss about Spam Farm Analysis.	4	CO6	An
iii)	Explain about three V's of Big Data.	4	CO1	U
iv)	Discuss about SON algorithm.	4	CO5	U
v)	Explain about HBASE in detail.	4	CO2	Ap
vi)	Explain about combiners with position and significance of combiners.	4	CO3	U

K. J. Somaiya Institute of Technology, Sion, Mumbai-22
(Autonomous College Affiliated to University of Mumbai)

April – May 2023

B.Tech Program: **Artificial Intelligence & Data Science** Scheme-II
 Examination: TY Semester: VI
 Course Code: **AIC604** and Course Name: **Big Data Analytics**

Date of Exam: 19/05/2023

Duration: 2.5 Hours

Max. Marks: 60

Q.3	Solve any two questions out of three.	16		
i)	Compare between Traditional approach and Big Data Business Approach.	8	CO1	An
ii)	Discuss in detail about Park, Chen and Yu algorithm.	8	CO5	U
iii)	Discuss about architecture of Data Stream Management System.	8	CO4	U
Q.4	Solve any two questions out of three.	16		
i)	Analyze Big Data with Shared Nothing Architecture in detail.	8	CO2	Ap
ii)	Discuss about how to achieve Matrix multiplication with one Map Reduce step.	8	CO3	Ap
iii)	Explain Hypertext Induced Topics Search (HITS) Algorithm.	8	CO6	U
